

WHAT IS CLAIMED IS:

1. A communications system, comprising:

5 a mobile unit operable to transmit redundant content to a plurality of destinations, a copy of the content transmitted to each destination being encoded using a code that is related to the codes used to encode copies of the content transmitted to the other destinations;

a plurality of base transceiver stations, each base transceiver station operable to:

10 receive a copy of the coded content from the mobile unit;

generate a packet including the coded content; and

communicate the packet; and

a decoder operable to:

15 receive a plurality of packets each including a copy of the coded content, each packet generated at a different base transceiver station;

decode the content in the packets by concatenating the related codes used to encode each copy of the content; and

generate one or more redundant packets including the decoded content.

2. The system of Claim 1, further comprising a router operable to:

20 receive a plurality of redundant packets from the decoder; and

select one of the redundant packets using a packet selection technique.

3. The system of Claim 2, wherein:

each base transceiver station is further operable to:

25 determine a value for a metric associated with communications between the mobile unit and the base transceiver station; and

generate a packet including the value and the coded content;

the decoder is operable to generate one or more redundant packets including the value and the decoded content; and

30 the router is operable to select of one of the redundant packets based on the value included in each packet.

4. The system of Claim 1, wherein the related codes used to encode the copies of the content are orthogonally related.

5 5. The system of Claim 1, wherein the related codes used to encode the copies of the content are punctured codes.

6. The system of Claim 1, wherein the related codes are serially concatenated.

10 7. The system of Claim 1, wherein the related codes are concatenated in parallel.

8. The system of Claim 1, wherein the mobile unit is further operable to transmit each copy of coded content in a packet.

15 9. The system of Claim 1, wherein the content comprises voice information received from a user of the mobile unit.

10. A network device comprising:

an interface operable to receive a plurality of redundant packets each generated at a different base transceiver station and each including a copy of coded content originating from a mobile unit, the coded content in each packet encoded using a code that is related to the codes used to encode the copies of the content in the other packets; and

a processor operable to:

decode the content in the packets by concatenating the related codes used to encode each copy of the content; and

generate one or more redundant packets including the decoded content.

11. The network device of Claim 10, wherein the processor is further operable to select one of a plurality of redundant packets including the decoded content using a packet selection technique.

12. The network device of Claim 11, wherein the processor is further operable to select one of the redundant packets based on a value of a metric included in each packet, the value of the metric in each packet associated with communications between the mobile unit and the base transceiver station that received the copy of the content included in the packet from the mobile station.

13. The network device of Claim 10, wherein the related codes used to encode the copies of the content are orthogonally related.

14. The network device of Claim 10, wherein the related codes used to encode the copies of the content are punctured codes.

15. The network device of Claim 10, wherein the related codes are serially concatenated.

16. The network device of Claim 10, wherein the related codes are concatenated in parallel.

17. The network device of Claim 10, wherein the content comprises voice information received from a user of the mobile unit.

18. A method for error correction using redundant packets, comprising:  
receiving a plurality of redundant packets each generated at a different base  
transceiver station and each including a copy of coded content originating from a  
mobile unit, the coded content in each packet encoded using a code that is related to  
the codes used to encode the copies of the content in the other packets;  
5 decoding the content in the packets by concatenating the related codes used to  
encode each copy of the content; and  
generating one or more redundant packets including the decoded content.

19. The method of Claim 18, further comprising selecting one of a  
plurality of redundant packets including the decoded content using a packet selection  
technique.

20. The method of Claim 19, wherein selecting one of the redundant  
packets comprises selecting a redundant packet based on a value of a metric included  
in each packet, the value of the metric in each packet associated with communications  
between the mobile unit and the base transceiver station that received the copy of the  
content included in the packet from the mobile station.

21. The method of Claim 18, wherein the related codes used to encode the  
copies of the content are orthogonally related.

22. The method of Claim 18, wherein the related codes used to encode the  
copies of the content are punctured codes.

23. The method of Claim 18, wherein the related codes are serially  
concatenated.

24. The method of Claim 18, wherein the related codes are concatenated in  
parallel.

25. The method of Claim 18, wherein the content comprises voice information received from a user of the mobile unit.

26. A method for error correction using redundant packets, comprising:  
transmitting redundant content to a plurality of destinations from a mobile  
unit, a copy of the content transmitted to each destination being encoded using a code  
that is related to the codes used to encode copies of the content transmitted to the  
other destinations;

receiving a copy of the coded content from the mobile unit at each of a  
plurality of base transceiver stations;

generating a packet including the coded content at each base transceiver  
stations;

communicating the packets to a decoder;

decoding the content in the packets by concatenating the related codes used to  
encode each copy of the content; and

generating one or more redundant packets including the decoded content.

27. The method of Claim 26, further comprising selecting one of a  
plurality of redundant packets including the decoded content using a packet selection  
technique.

28. The method of Claim 27, wherein selecting one of the redundant  
packets comprises selecting a redundant packet based on a value for a metric included  
in each packet, the value of the metric associated with communications between the  
mobile unit and the base transceiver station.

29. Error correction software embodied in a computer-readable medium and operable to:

5 receive a plurality of redundant packets each generated at a different base transceiver station and each including a copy of coded content originating from a mobile unit, the coded content in each packet encoded using a code that is related to the codes used to encode the copies of the content in the other packets;

decode the content in the packets by concatenating the related codes used to encode each copy of the content; and

10 generate one or more redundant packets including the decoded content.

30. The software of Claim 29, further operable to select one of a plurality of redundant packets including the decoded content using a packet selection technique.

15 31. The software of Claim 30, wherein selecting one of the redundant packets comprises selecting a redundant packet based on a value of a metric included in each packet, the value of the metric in each packet associated with communications between the mobile unit and the base transceiver station that received the copy of the content included in the packet from the mobile station.



32. A system for error correction using redundant packets, comprising:

means for receiving a plurality of redundant packets each generated at a different base transceiver station and each including a copy of coded content originating from a mobile unit, the coded content in each packet encoded using a code that is related to the codes used to encode the copies of the content in the other packets;

means for decoding the content in the packets by concatenating the related codes used to encode each copy of the content; and

means for generating one or more redundant packets including the decoded content.

33. The system of Claim 32, further comprising means for selecting one of a plurality of redundant packets including the decoded content using a packet selection technique.

34. The system of Claim 33, wherein the means for selecting is operable to select a redundant packet based on a value of a metric included in each packet, the value of the metric in each packet associated with communications between the mobile unit and the base transceiver station that received the copy of the content included in the packet from the mobile station.